



Letter to the Editor

Is high thromboembolic risk not really associated with low time in therapeutic range in patients with prosthetic heart valves?

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Dear Editor,

We have recently read with great interest the article reported by Poli et al. which was published in the last issue of International Journal of Cardiology [1]. We appreciate the authors for valuable contribution to the literature, however, we believe that there are several major drawbacks that need to be addressed.

In this study, Poli et al. indicated that the thromboembolic risk was not associated with the low time in the therapeutic range (TTR) and it varies in relation to the intensity of the anticoagulation. We agree with their conclusion, however there are several challenging points that should be answered. First, they reported that TTR was high when patients were managed at low intensity anticoagulation, and the rate of thromboembolic events was higher in this patient group as compared to those with low TTR. In contrast, Table 3 demonstrated that higher intensity anticoagulation and higher TTR values were related higher thromboembolic event rates (0.9% vs 0.71% vs 0.43% respectively).

Second, the odds ratio for low TTR was 0.92 in Table 4 meaning that low TTR decreases thromboembolic events, however, the 95% confidence interval was 0.59 to 1.44. If the 95% confidence interval includes or crosses the null hypothesis “1”, then there is insufficient evidence to conclude that the results are statistically significant (2). Moreover Table 4 did not provide any *p* value regarding the significance of the analyses. The results of this analysis may be misunderstood by the readers as “low TTR is good, high TTR is bad”.

Conflict of interest

The authors declare that they have no conflict of interest.

References

- [1] D. Poli, E. Antonucci, V. Pengo, et al., Mechanical prosthetic heart valves: quality of anticoagulation and thromboembolic risk. The observational multicenter PLECTRUM study, *Int. J. Cardiol.* Sep 15 (267) (2018) 68–73.

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